AMENDMENTS TO THE CLAIMS:

1. (**Currently Amended**) A thin film forming apparatus ~~containing raw material supply sources, namely~~ comprising:

a vacuum chamber;

a substrate disposed in the vacuum chamber;

a sputter film forming source provided with a sputter gas introduction port; ~~and~~

a reactive gas supply source provided with a reactive gas introduction port and a reactive gas exhaust port, and comprised of a reactive gas plasma generator, wherein the sputter film forming source and the reactive gas supply source are disposed in the, ~~in a same~~ vacuum chamber, and ~~such that~~

wherein both [[the]] sources oppose the ~~a~~ substrate;~~, wherein~~

a main evacuation port evacuates ~~for evacuating~~ the vacuum chamber together with the sputter gas and the reactive gas, ~~is disposed closer to the reactive gas supply source between both the sources, the thin film forming apparatus further including~~

a shield means for preventing the reactive gas from remaining in the vicinity of a sputter target, and

wherein a sputter gas flow path at a flow rate higher than that of the reactive gas is always established from the vicinity of the sputter gas introduction port toward the direction of the main evacuation port during a film forming process and a reaction process; and

a control system which executes a reaction process of operating the reactive gas supply source provided with a reactive gas introduction port and a reactive gas exhaust port and a film forming process of operating the sputter film forming source provided with a sputter gas introduction port.

2. (**Currently Amended**) The thin film forming apparatus according to claim 1, wherein the control system executes ~~both the processes alternately by starting any one of the reaction process and the~~ a film forming process of operating the sputter film forming source provided with the sputter gas introduction port by turning ON/OFF in a pulse fashion ~~after the other process ends~~.

3-10 (**Canceled**)

11. (**New**) The thin film forming apparatus according to claims 1 or 2 wherein the thin film forming apparatus is constructed as a film forming chamber within an in-line type film forming apparatus for fixed type film formation or passage type film formation.

12. (**New**) The thin film forming apparatus according to claim 1 or 2, wherein the reactive gas supply source, without the reactive gas exhaust port, comprises any one of an ion gun, a bombardment electrode, or a pair of gas nozzles provided near the substrate.

13. (**New**) A thin film forming method using a thin film forming apparatus comprising a vacuum chamber; a substrate disposed in the vacuum chamber; a sputter film forming source provided with a sputter gas introduction port; a reactive gas supply

source provided with a reactive gas introduction port; and a reactive gas exhaust port, the method comprising the steps of:

forming the gas curtain by the sputter gas flow shielding a sputter target from a reactive gas after evacuation of the chamber;

depositing the thin film of a metallic species on the substrate by the sputtering;

irradiating plasma or an active species originating from a reactive gas to the thin film of a metallic species deposited on the substrate to convert a thin film of a metallic species to a metallic compound thin film,

wherein the step of depositing the thin film of the metallic species and the step of the reaction process are alternately repeated several times.

14. **(New)** A thin film forming method according to claim 13, wherein the reactive gas flow rate is selected by a predetermined gas flow rate corresponding to the sputter gas flow rate in the basis of the relation of the sputter gas flow rate, the reaction gas flow rate, and the sputter deposition rate.

15. **(New)** A thin film forming method according to claims 13 or 14, wherein the step of depositing the thin film and the step of converting the thin film to a metallic compound thin film are alternately repeated by a pulse fashion.

16. **(New)** The thin film forming method according to claim 13, wherein during the step of each film forming process, the increase in the amount of thin film thickness is less than 20Å .

17. (**New**) The thin film forming method according to claim 14, wherein during the step of each film forming process, the increase in the amount of thin film thickness is less than 20Å .

18. (**New**) The thin film forming method according to claim 15, wherein during the step of each film forming process, the increase in the amount of thin film thickness is less than 20Å .